Beckwith. (F. E.)

ON THE TREATMENT

OF

LACERATION OF THE CERVIX UTERI,

WITH HISTORIES OF TWENTY-SIX ORIGINAL CASES.

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[From the Proceedings of the Connecticut Medical Society, 1886.]

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DISSERTATION.

The cervix uteri is injured during parturition in about sixty per cent. of cases, or in about the same ratio as the perinæum, so that the statement that the multiparous cervix is always nodular or fissured, which has been faithfully copied from one obstetric text-book into another, should be somewhat modified.

I have taken notes of recent careful examinations of nineteen multiparæ in which no injury has been sustained by the cervix during parturition:

Case	I,	Age,	46,	No. children,	2,	Cervix normal.
"	II,	"	39,	"	2,	"
"	III,	"	29,	"	1,	"
"	IV,	"	30,	"	1,	"
"	V,	"	72,	"	4,	"
"	VI,	"	35,	"	1,	"
"	VII,	"	35,	"	2,	"
"	VIII,	"	28,	"	2,	"
"	IX,	"	35,	"	1,	"
"	X,	"	19,	"	1,	"
"	XI,	"	53,	"	8,	"
"	XII,	"	45,	"	9,	"
"	XIII,	"	29,	"	1,	"
"	XIV,	"	35,	"	1,	"
"	XV,	"	33,	"	1,	"
"	XVI,	"	25,	"	2,	"
"	XVII,	"	69,	"	10,	"
"	XVIII,	"	23,	"	1,	"
"	XIX,	"	31,	"	2,	"

The time to ascertain whether the cervix has been lacerated or not is at the end of six weeks or two months after parturition, and it is a duty we owe our patients to make such examination at this time, if symptoms of a poor getting up, otherwise inexplicable, are present.

"Until recently this condition of laceration was universally mistaken for ulceration, and sometimes for the early stages of epithelioma, and for corroding ulcer of the uterus. To heal this ulceration would long baffle every mode of treatment, or, if any improvement took place in the patient's condition after a protracted rest in the recumbent position, a relapse would follow again and again with every attempt at exercise. Such a case passed from one physician to another until eventually the leucorrhœa ceased, and the profuse menstruation diminished as the surfaces, from the repeated application of caustics or the cautery, became cicatricial in character.

"Nevertheless a woman in this condition gradually became a confirmed invalid, while the hypertrophy of the uterus remained, and from impairment of her general health the nervous element became most prominent."— *Emmett's Principles and Practice of Gynæcology, p. 456.*

We may instructively divide laceration of the cervix uteri into three classes:

I. Those in which the laceration is complicated with eversion and granular erosion with attendant leucorrhœa and congestive hypertrophy, with or without nervous prostration and spinal irritation. Follicular degeneration is frequently present, also secondary retroversion or prolapsus. In this class the laceration is either lateral or bilateral.

II. Those in which there is no decided eversion and erosion, but nervous exhaustion and spinal irritation, with anæmia, loss of general health, and sterility.

In this class the laceration is usually more superficial, frequently stellate, with considerable cicatricial material, or infrequently lateral or bilateral.

III. Those in which not only are eversion and erosion absent, but also all symptoms whatever, unless it be sterility, for which the patient seeks relief.

In this class the laceration is quite superficial and stellate, or anterior or posterior when it may be of considerable depth.

"It is very rare for any bad effects to remain after laceration, either backward or forward."— *Emmett.*

In the *first* class two methods of treatment are available. *a.* Medical, consisting in the use of astringents, rest, vaginal douches, and repeated puncture of degenerated and occluded mucous follicles. *b.* Surgical, by trachelorrhaphy, following efficient preparatory treatment.

It is indeed strange, as Emmett remarks, that Bennett, who accurately described this lesion, and appreciated its importance, failed to discover this operation.

While prolapsus and retroversion are always benefited by trachelorrhaphy, they are not thereby cured, but require subsequent treatment by appropriate pessaries.

"When retroversion has existed, and a pessary has been used, it is best, as a rule, to remove the instrument at the time of operation, and to replace it only when the patient begins to stand upon her feet."— *Emmett.*

"The use of a pessary to sustain the heavy uterus is often advisable for two or three months after recovery."— *Thomas'* "*Diseases of Women.*"

In the *second* class, trachelorrhaphy is practiced by Emmett and hosts of followers, with alleged entire relief of the accompanying nervous and general symptoms, said to depend entirely upon cicatricial tissue in and around the angle of the laceration.

"Notwithstanding, I have experienced disappointment in not gaining, in a number of cases, all that I had expected, I have in many instances obtained such remarkable results that I have been more satisfied with my practice in this line than under other circumstances where cause and effect seemed more clearly related.

"We cannot ignore the clinical fact, which has been observed by many, that after nature has repaired the injury by partially or completely filling the gap between the flaps by cicatricial tissue formed in the process of healing by granulation, marked reflex disturbance will sometimes be established. Moreover, it has been frequently noticed that a persistent anæmia co-exists with this condition which gradually disappears after this tissue has been removed.

"After having accomplished, by local treatment, all that can be gained in healing the lacerated surfaces, and in the removal of the cellulitis, the question presents itself as to the proper class of cases

for the permanent cure of which the operation should be resorted to. I should state, in a general way, that when reflex symptoms exist, with enlargement of the uterus, after the cellulitis has been fairly removed, and when the woman suffers from neuralgia or persistent anæmia, an operation is necessary, notwithstanding the parts may have healed completely, and the thorough removal of the cicatricial tissue from the angles is absolutely necessary for success."— *Emmett.*

I do not operate in this class of cases, having found the results unsatisfactory and not permanent, but prefer rather to follow the methods employed by Weir Mitchell, for nervous exhaustion and spinal irritation, conjoined with appropriate medical treatment of any slight erosion which rarely may co-exist. The presence of much cicatricial tissue around a laceration, and the presence of nervous twigs therein, has not as yet been microscopically demonstrated. I will pause again to quote from Goodell:

"Of the beneficial results of the operation of trachelorrhaphy I must candidly admit that I am not now so sanguine as at first. Cases have disappointed me; but then, on the other hand, I have undoubtedly operated on some cases unnecessarily. The broad rule may be laid down that, when marked ectropion exists, associated with enlarged Nabothian glands, with leucorrhœa and menorrhagia, the issue of the operation will be a happy one. In such cases I have had capital results. When, however, I have operated on a tear without ectropion, or merely on account of cicatricial tissue in the angles of the fissure, I have met with bitter disappointments. But I now know better when to operate; and this fact I have learned, that nervous exhaustion and spinal irritation will evoke symptoms which others, as well as myself, have referred to slight cervical tears, but which are in no wise dependent on these lesions."

In the *third* class, it is unnecessary to call the attention of the patient to the lesion, and unwise to resort to trachelorrhaphy, unless sterility, otherwise inexplicable, be a source of unhappiness, when the operation becomes justifiable, although little hope of so curing the sterility can be held out.

"If it become the rule of practice that all cervical lacerations should be closed without reference to their pathological influence, many women will be exposed to operation without cause, and without compensation."— *Thomas.*

"The simple existence of a fissure in the cervix does not justify an operation for its closure, nor should the operation ever be resorted to except for the relief of symptoms which have remained after the accepted treatment has been employed without apparent benefit."— *Emmett.*

It is unnecessary for me to speak of the operation itself, or its preparatory treatment, since their description given by Emmett in his masterly article upon laceration of the cervix uteri, is complete.

When one is worried by failures, or in doubt in a peculiar case, this article will always afford consolation and profit.

Following Dr. James B. Hunter of New York, who initiated, and has successfully practiced trachelorrhaphy and perineorrhaphy at one sitting, I now do his double operation.

In such cases the perineal sutures should be taken out upon the eighth day, and the cervical sutures upon the fifteenth day, where the new perinæum will safely bear retraction by Sims' speculum.

By this practice a patient is spared the fatigue and expense of a second operation.

The practice has against it the weight of Emmett's authority, who says: "These operations should be done afterwards, for it is not good practice to attempt to operate on the lacerated cervix, and at the same sitting close the perineum."—p. 480.

I will now relate brief histories of twenty-six cases of laceration of the cervix uteri from my service in the New Haven Hospital, treated in a general ward, with unfavorable hygienic conditions always present, chief among which is the constant presence of chronically suppurating wounds:

Case I.

F. H., aged 35; mother of three children — youngest six years old; deliveries natural; menstruation regular and scanty; blood-tinged mucous leucorrhœa for over a year; severe lumbar-pain; is anæmic, and general health is poor; has suffered with inflammation and ulceration of womb for three years, during all of which time she has been treated by another physician with local applications and general tonics without marked improvement. I treated this case two months with slight improvement, and then sent her into the hospital for operation. Uterus movable, anteverted three and one-fourth inches in length; cervix large; right laceration to vaginal junction with eversion and erosion; no pelvic cellulitis or peritonitis; trachelorrhaphy performed four sutures; removed eighth day; union perfect; os. ex. of normal size; slight cervical endometritis remains; erosion and eversion cured.

CASE II.

M., aged 37; mother of four children; two abortions; three instrumental deliveries; children weighing respectively twelve, fourteen, and sixteen pounds; menstruation normal; leucorrhœa muco-purulent; anterior vaginal wall prolapsed outside vulva, looking like skin; uterus movable, two and three-fourths inches long; axis normal; prolapsus third degree; bilateral laceration of cervix to vaginal junction on each side; no pelvic peritonitis or cellulitis; a fibroid polypus hangs from os. ex., one and one-half inches; it is three inches long, attached to posterior wall of uterus; anterior vaginal wall and cervix have been outside vulva for eighteen months; complains of nothing except discomfort and bearing down from the prolapsus; general health is good. I removed the fibroid with scissors, and ten days later did double trachelorrhaphy (after one week's preparatory treatment), four stitches upon each side; removed stitches upon eighth day, both lacerations completely united; cervix and os. ex. of normal size. Twenty-four days after operation, fitted prolapsus pessary, and discharged patient cured, except of prolopsus. Before the operation, pessary rested in the fissure, and caused intolerable irritation.

CASE III.

C. S., aged 32; mother of one child, now six months old; instrumental delivery; no abortion; has menorrhagia and constant backache; profuse constant muco-purulent leucorrhœa; uterus movable, two and three-fourths inches long; axis normal; small amount of eversion and granular erosion; laceration of cervix on right side to vaginal junction; no pelvic cellulitis or peritonitis. Since birth of her child menstruation has been profuse for three days, followed by slight oozing of blood until succeeding period. Leucorrhœa and backache have never been absent during this period. A month's treatment produced slight improvement only. Trachelorrhaphy performed (preparatory treatment for three weeks), four sutures; removed upon seventh day; union perfect; cervix and os. ex. normal; discharged cured.

CASE IV. — SENT BY DR. M. C. WHITE OF NEW HAVEN.

S. C., aged 36; mother of three children — youngest nineteen months old; deliveries natural; no abortions; suffers from menorrhagia; leucorrhœa scanty, mucous, and bloody; severe burning sensation in hypogastrium and groins, which is increased by prolonged sitting; uterus movable, two and three-fourths inches long; position and axis normal; laceration of cervix, left side; eroded, everted, and bleeding from gentle touch; areolar hyperplasia of cervix; no pelvic cellulitis or peritonitis; general health good. During last five months she has suffered from menorrhagia, and also constant oozing of small amount of blood, attended by burning pelvic pain. Last labor was tedious, and she is posi-

tive that her physician inserted his hand into the cervix and uterus, to hasten dilatation. Preparatory treatment for three weeks; trachelorrhaphy, five sutures; removed upon the eighth day; union has taken place in a band only one-fourth of an inch wide. Patient suffered from vesical irritation, and strained severely in passing hardened feces. Operation is a failure, and must be repeated.

Case v. — Sent by Dr. Baldwin of Birmingham.

B. S., aged 40; mother of five children — youngest five years old; no abortions; deliveries normal; suffers from metrorrhagia with excessive loss of blood; constant, very profuse muco-purulent leucorrhœa; severe burning sensation and bearing-down pain in pelvis, and lumbar ache; uterus movable, three and one-eighth inches long, ante-flexed; cervix large, lacerated bilaterally to vaginal junction, with both lips everted and completely eroded and covered with muco-pus, and looks like a large strawberry; no pelvic cellulitis or peritonitis; general health very poor; extremely nervous and irritable; and much emaciated. Her suffering dates from birth of last child two and one-half years ago. She has pelvic pain, backache, severe headaches, metrorrhagia and constant profuse leucorrhœa. Intercourse causes pain often lasting two or three hours. Preparatory treatment for five weeks; double trachelorrhaphy four sutures on right side, three upon the left; sutures removed upon eleventh day; union complete; case cured.

Case vi. — Sent by Dr. N. P. Tyler of New Haven.

M. W., aged 23; mother of one child now two years old; delivery normal; one abortion, sixth month; every other period is excessive; muco-purulent leucorrhœa is constant; suffers pain in back and right inguinal region; uterus movable, two and five-eighths inches long, in second degree of retroversion and prolapsus; stellate laceration with four points present, both lips of cervix in state of granular erosion; no eversion; no pelvic cellulitis or peritonitis; comes on account of constant pain and leucorrhœa. I treated this case with applications and retroversion pessary for three months, succeeding in healing about two-thirds of the eroded tissue, and in relieving the retroversion, but I could get no further towards a cure, therefore stopped treatment, and advised trachelorrhaphy if case became worse; did not report again.

Case vii. — Sent by Dr. Welch of Ansonia.

M. D, aged 25; mother of one child now three years of age; no abortions; powerless labor; forceps delivery; suffers from menorrhagia and constant mucous leucorrhœa; severe coccygeal pain; uterus two and one-half inches long, movable; axis normal; chronic cervical endomitritis is present; no eversion; no erosion; no displacement; double laceration to vaginal junction; post lip smaller than anterior; since

delivery has suffered constantly from leucorrhœa, and dull pelvic pain, increased by work and going upstairs; no pelvic cellulitis or peritonitis; no preparatory treatment; trachelorrhaphy double, three sutures upon each side; sutures removed upon the sixth day; both lacerations firmly united whole length; good result; discharged cured.

Case viii.

L. B., aged 26; mother of five children — youngest seven months old; deliveries normal and easy; one abortion at sixth month; menstruation regular and scanty; slight mucous leucorrhœa; uterus movable, axis normal, two and three fourths inches long; chronic cervical endometritis; laceration on left side of cervix one half inch long; both lips in state of granular erosion, bleeding when touched; no eversion; no pelvic cellulitis or peritonitis; general health poor, is anæmic. Fourteen days after her miscarriage resumed her housework while losing blood from the uterus, and there has been an almost constant loss of blood in small quantity ever since, for the relief of which she entered the hospital. Was treated for one month and then discharged, with erosion nearly healed, and without any bloody discharge. Lips are easily everted, and probably erosion will return. Improvement will not be permanent.

Case ix. — Sent by Dr. Russell, Wallingford.

S. W., aged 22; mother of one child, fifteen months old; delivery normal; one abortion at fourth month, three weeks ago; menstruation regular and normal; considerable muco purulent leucorrhœa; moderate pain in pelvis and sacral region; uterus movable, prolapsed, and retroverted to first degree, two and five eighths inches long; laceration on right, five eighths inch deep; posterior lip in state of granular erosion; chronic cervical endometritis; no pelvic cellulitis or peritonitis; for four months has suffered from backache, much debility, and leucorrhœa, and comes to hospital on account of these symptoms and a bearing down feeling in the pelvis. Preparatory treatment for three weeks. Trachelorrhaphy, three sutures; removed upon seventh day; laceration united; discharged anæmic, and not strong, with erosion cured, and without pelvic pain or backache. Fitted pessary for retroversion, which caused pain. Its use must be postponed for two months.

Case x.

R. C., aged 31; mother of one child, eight months old; delivery normal; tedious labor; child weighed ten pounds; menstruation normal; profuse muco purulent leucorrhœa since birth of her child; dull, aching, sacral pain; uterus movable, two and three fourths inches long, anteverted to first degree; cervix, laceration upon left side, and two superficial fissures to right; stellate laceration; no eversion; small erosion on

anterior lip; cervical endometritis; no pelvic cellulitis or peritonitis; perineum presents laceration one inch long; vagina subinvoluted; some prolapse of anterior wall; general condition good; somewhat anæmic; has felt since birth of her child "as if her pelvic organs were dropping out," and has worried about loss of strength and constant leucorrhœa; no pelvic peritonitis or cellulitis; trachelorrhaphy and perineorrhaphy indicated, and done at one sitting; principal fissure on left side was cut to vaginal junction, and closed with three sutures; four sutures in perineum; perineal sutures removed upon the tenth day; union firm and complete; cervical sutures removed upon the twelfth day; laceration firmly united; cervix small; granular erosion cured.

Case xi. — Sent by Dr. Shelton of Shelton.

M. B., aged 35; mother of three children — youngest five years of age; first labor tedious, others normal; one abortion; menstruation regular and normal; slight mucous leucorrhœa; perineum one half inch long; posterior vagina wall slightly prolapsed; vagina subinvoluted; uterus movable, retroverted to second degree, three inches long; cervix lacerated upon left to vaginal junction; lips everted, but not eroded; no pelvic cellulitis or peritonitis; pain and tenderness along the spine, and nervous exhaustion. General condition poor, from long confinement to bed; whole muscular system much atrophied. Following the births of her children, which occurred at short intervals, came prostration, and an attack of syncope, after which she could not stand or walk, from loss of power in her back. The two following years she spent in bed, constantly suffering from pain and tenderness along the spine, and tenderness over the cervix. No preparatory treatment; trachelorrhaphy upon left side, three sutures. Perineorrhaphy at same sitting, four sutures; perineal sutures removed upon eighth day. Union firm and complete. Cervical sutures removed upon the fourteenth day; laceration united; cervix and os. ex. normal; no backache. Discharged in anæmic condition, for which continuance of massage is indicated, and change of air to seaside. The spinal irritation will probably return, unless the anæmia is cured. I doubt its dependence upon the lacerations.

Case xii. — Sent by Dr. Platt of Torrington.

M. E., aged 26; mother of two children — younger two years of age; deliveries normal; no abortion; menstruation regular and normal; constant mucous leucorrhœa; perineum atrophied, lacerated one-half inch; uterus movable; axis normal, two and three fourths inches long; laceration of cervix upon right side one-half inch deep; no eversion; slight erosion around laceration; no pelvic cellulitis or peritonitis. General condition good; has suffered from pelvic pressure and constant leucorrhœa. Preparatory treatment for one month, carried out by Dr.

Platt. Trachelorrhaphy, two sutures; perineorrhaphy, three sutures, at same sitting. Perineal sutures removed upon seventh day; union firm and complete. Cervical sutures removed upon the thirteenth day. Laceration is healed completely. Discharged cured.

Case XIII. — Sent by Dr. Leighton of New Haven.

M. L., aged 21; mother of one child, now ten months of age; instrumental delivery; no abortion; menstruation regular and normal; constant leucorrhœa, usually mucous, sometimes blood-tinged; constant dull pelvic pain; vagina large, subinvoluted; perineum lacerated, one-half inch, quite firm; uterus movable; axis normal, two and three-fourths inches long; bilateral laceration of cervix half way to vaginal junction upon right, to vaginal junction upon left; lips everted and eroded, bleeding when touched; no pelvic cellulitis or peritonitis. General condition good; some anæmia. Since delivery has had constant leucorrhœa, sometimes bloody, quite profuse, and has suffered pain during and after coition. Walking causes sensation of fullness and pressure in pelvis. Preparatory treatment for one week. Double trachelorrhaphy, four sutures upon left side of cervix, and two upon the right. Sutures removed upon ninth day; laceration on left side mostly healed — on right side, not at all; considerable eversion and erosion remain; result is a failure, almost complete. Should have insisted upon preparatory treatment for six weeks or two months, although patient could ill afford the expense. Discharged, with note asking her physician to treat by astringents, and, if cure failed, to send her back for another operation.

Case XIV. — Sent by Dr. Loomis of Birmingham.

E. L., aged 38; mother of four children — youngest two and one-half years of age; no abortions; deliveries normal, except second, which presented by a shoulder, and was delivered by version. Metrorrhagia, considerable blood lost every two weeks; moderate mucous leucorrhœa; perineum one-half inch long, and firm; uterus movable; anteverted to first degree, and anteflexed two and three-fourths inches long; cervix lacerated to vaginal junction upon right side; eversion and granular erosion of both lips, which are thickened by hyperplasia; chronic cervical endometritis; no pelvic cellulitis or peritonitis. General condition fair; has suffered from malaria, and is anæmic; suffers from pelvic discomfort and bearing down, which are increased by walking, riding in cars or a carriage, and by work; constant backache. Has been treated unsuccessfully. Preparatory treatment for one week. Perineorrhaphy thought to be unnecessary; trachelorrhaphy upon right side, four sutures; removed upon tenth day; laceration perfectly healed. Cervix and os. ex. are normal. Discharged, feeling quite well.

CASE XV. — SENT BY DR. LOOMIS OF BIRMINGHAM.

M. B., aged 24; mother of three children — youngest two years of age: no abortion; menstruation once in six weeks; constant mucous leucorrhœa; dull pain in lumbar and in left inguinal regions; perineum normal; uterus movable, anteflexed a little, position normal, three inches long; cervix lacerated to vaginal junction on left side, and slightly upon right side; lips everted and in state of granular erosion, the granulations pale and flabby; no pelvic cellulitis or peritonitis; is very nervous; has been miserable since birth of last child, with backache, pelvic pain, and considerable constant leucorrhœa. Treatment has been unavailing, and comes for operation. Preparatory treatment thirteen days; trachelorrhophy, four sutures upon left side, one upon right; sutures removed upon eighth day; laceration perfectly healed; cervix and os. ex. normal, with a little ring of erosion around the latter.

CASE XVI.

M. H., aged 31; mother of five children — youngest five years old; deliveries normal; no abortions; menstruation normal; considerable constant mucous leucorrhœa; uterus movable, axis normal, three inches long; laceration upon left side to vaginal junction, granular erosion of both lips; no pelvic cellulitis or peritonitis; general condition good, although somewhat anæmic. Has suffered since birth of last child from backache, leucorrhœa, and weariness, which have increased during last year, and also from bulging of posterior vaginal wall during defecation, feeling as if old time support of this tissue had disappeared. No preparatory treatment. Trachelorrhophy upon left side, four sutures; perineorrhophy at same sitting, four sutures; perineal sutures removed upon eighth day; laceration completely healed; perfect union; cervical sutures removed upon twelfth day; laceration healed; union firm and sound; cervix and os. ex. normal; discharged cured.

CASE XVII. — SENT BY DR. CONKLIN OF ANSONIA.

M. J., aged 33; mother of five children — youngest seventeen months old; four deliveries normal; last one instrumental; no abortions; menstruation regular; constant profuse mucous leucorrhœa; dull pain in pelvis and over sacrum; pelvic pain and pressure aggravated by walking; vagina large and subinvoluted; perineum one-half inch long; uterus movable, axis normal, two and three-fourths inches long, prolapsed to first degree; cervix lacerated upon right side to vaginal junction, lips much swollen, widely everted, and in state of granular erosion, bleeding when touched; no pelvic peritonitis or cellulitis; heart weak and irritable, soft mitral, regurgitant murmur; is anæmic; since birth of last child has constantly suffered, and been unable to do her housework without great fatigue. Has worn a pessary

for the prolapsus without relief. Preparatory treatment for five weeks; cervix still large with everted lips. Unwilling to wait for further medical preparatory treatment. Trachelorrhaphy upon right side, three sutures (no anæsthetic used on account of condition of heart); sutures removed upon ninth day; slight union at angle of laceration, considerable eversion and erosion remain. Considered the operation a failure, and resumed preparatory treatment for one month. Inserted one suture through the lips deeply and twisted it loosely, leaving it in place three weeks, to partially overcome the eversion. Trachelorrhaphy upon right side, four sutures (no anæsthetic); removed upon the tenth day; laceration healed, but union is too superficial to be satisfactory. A poor result, although not a failure; much improvement, which can be continued by local treatment. Five weeks from date of second trachelorrhaphy, during which time local treatment was carried on, perineorrhaphy was performed (no anæsthetic. Cocaine tried, but did not produce local anæsthesia); six sutures; removed upon the sixth day; union is firm and complete; cervix now smaller, with a little eversion present; general condition much improved.

Case xviii.

C. H., aged 35; mother of one child, now eight years of age; delivery instrumental; fœtus weighed eleven pounds; menstruation scanty and regular; constant mucous leucorrhœa for six years, at times tinged with blood; dull ache in pelvis and lumbar region; perineum three and three-fourths inches long; vagina large, chronically congested; uterus movable, anteverted to second degree, and somewhat anteflexed, two and three-fourths inches long; cervix large, lacerated on right side; lips everted, and in state of granular erosion, bleeding when touched; chronic cervical endometritis; no pelvic cellulitis or peritonitis; general condition good. She was treated off and on for four years for "ulceration of the womb," improving slightly in regard to the leucorrhœa. During the last two years she has not been treated, being quite discouraged. She still suffers from backache, leucorrhœa, at times bloody, pelvic weight, frontal headache, and "soreness in the womb" after defecation. No preparatory treatment. Trachelorrhaphy on right side, three sutures; removed on the ninth day; laceration healed completely; line of union not thick enough; no eversion or erosion.

Case xix. — Sent by Dr. Loomis of Birmingham.

M. P., aged 29; mother of three children — youngest three years old; deliveries normal; no abortions; menorrhagia for three years; scanty mucous leucorrhœa; dull backache in sacral region; perineum scooped out, appearing normal, but in reality thin and weak; uterus movable, retroverted to second degree, two and three-fourths inches long; cervix

lacerated to vaginal junction upon the right; no eversion; posterior lip in state of granular erosion; no pelvic cellulitis or peritonitis; general health good. Since birth of last child has suffered from menorrhagia, backache, and leucorrhœa. Patient refused to remain six weeks for the preparatory treatment thought to be necessary in her case, and urged upon her. Trachelorrhaphy was unwillingly performed, and only upon promise that she would have it repeated if necessary; four sutures; removed upon the eighth day; upper three-fourths of laceration united, with small opening at site of uppermost suture; small spot of granular erosion remains. Operation a failure. Patient was satisfied, and refused to have a second operation.

Case xx. — Sent by Dr. Day of Westport.

L. C., aged 34; mother of three children — youngest three years old; deliveries normal; no abortions; menstruation normal; constant slight mucous leucorrhœa; "sensation of dragging" in each inguinal region near Pouparts ligament; vagina large and relaxed; perineum three-fourth inch long; uterus movable, prolapsed to first degree, retroverted to third degree, two and three-fourths inches long; bilateral laceration, quite shallow; os. ex. surrounded by a ring of granular erosion; chronic cervical endometritis; no pelvic peritonitis or cellulitis. Trachelorrhaphy not necessary, for while os. ex. is three-fourths inch wide, there is no eversion, and slight erosion; alterative astringents will cure. Treated patient fourteen days, fitting a retroversion pessary, and sent her home to Sharon, to be there treated by Dr. Shears.

Case xxi.

A. C., aged 38; mother of three children — youngest fourteen years old; deliveries normal; no abortions; menstruation scanty, irregular, and painful; considerable muco purulent leucorrhœa for last thirteen years; constant dull pelvic pain; vagina sensitive and chronically congested; perineum one inch long; uterus movable, axis normal, three inches long; cervix lacerated bilaterally to vaginal junction on each side, divided into two lobes, in state of areolar hyperplasia; anterior lip twice the size of posterior; considerable follicular degeneration, with occluded cysts, feeling like shot under the mucous membrane; no pelvic cellulitis or peritonitis; suffers from nervous prostration, with attacks of hysteria and hypochondria, much worse during last year; sometimes has pruritus vulvæ; spends half the day in bed; has been told that cancer would result. Preparatory treatment for one week. Trachelorrhaphy, double; four sutures on right side, three on left; removed on ninth day; union firm and complete on both sides; both lacerations cured; cervix of good shape. Needs now prolonged treatment by rest, tonics, and change of climate.

CASE XXII. — SENT BY DR. SHELTON OF SHELTON.

W. L., aged 25; mother of three children — youngest three years old; deliveries normal; two abortions; second one year ago; menstruation irregular since second abortion, and with dragging pelvic pain; constant purulent leucorrhœa during past year; constant pelvic pain, much increased by defecation; vagina large and subinvoluted; anterior wall prolapses a little; perineum lacerated to sphincter ani; uterus movable, retroverted to second degree, with slight secondary retroflexion, prolapsed to first degree, two and five-eighths inches long; areolar hyperplasia of cervix, laceration on right side, almost to vaginal junction; slight eversion, granular erosion of posterior lip; no pelvic cellulitis or peritonitis; general health poor; is anæmic; suffered from septicæmia in both abortions; last one left her much prostrated and nervous, and since then, leucorrhœa has been very troublesome. Has been carefully treated without success. Preparatory treatment for one week. Trachelorrhaphy right side; two sutures; perineorrhaphy at same sitting, four sutures; perineal sutures removed on tenth day; perineum completely united; cervical sutures removed on twelfth day; laceration healed well, but cervix is swollen, and there is some granular erosion remaining; trachelorrhaphy not satisfactory; would like to repeat. Continued treatment three weeks, and discharged patient much improved.

CASE XXIII. — SENT BY DR. W. C. WELCH OF ANSONIA.

L. E., aged 24; mother of one child, now one year old; delivery normal; abortion five weeks ago; menstruation regular, and normal in amount; profuse muco purulent leucorrhœa for ten months; perineum three-fourths of an inch long; uterus movable, retroverted to second degree, two and three quarters inches long; cervix large and congested; bilateral laceration, to vaginal junction on left side, almost to vaginal junction on right; complete eversion of lips, and granular erosion; posterior lip smaller than anterior; no pelvic cellulitis or peritonitis. General condition good. Has suffered only from profuse leucorrhœa and the abortion, which Dr. Welch thought due to the laceration, and therefore sent for operation. No preparatory treatment. Trachelorrhaphy upon right side only, four sutures. From irregularity of laceration and smaller size of posterior lip, I operated only on right side, thinking small posterior flap would not bear tension of sutures if operation was done at once upon both sides, there being complete eversion. Sutures removed on tenth day. Laceration has not united, except in a narrow band; operation is a failure; must repeat, removing more tissue from anterior lip. Treatment resorted to for two weeks. Trachelorrhaphy on both sides, three sutures on right side, four on left; tissues soft and friable; sutures removed on thirteenth day. Laceration completely

healed on right side, only half healed on left side; ought to operate again on left side. There may be union enough to prevent eversion, but operation is a partial failure. Erosion is cured. Patient discharged.

Case xxiv.

I. M., aged 35; mother of one child, now seven years of age; delivery normal; no abortion; metrorrhagia for last two years, scanty flow, painful; constant muco-purulent leucorrhœa for two years, profuse for last six months; sharp paroxysmal pain on left side of pelvis, worse at night; vagina large, with small prolapsus of anterior wall; perineum normal; uterus movable; axis and position normal, two and seven-eighths inches long; cervix lacerated on right side to vaginal junction, swollen and tender; lips everted and in state of granular erosion, bleeding when touched; chronic cervical endometritis; no pelvic cellulitis or peritonitis; suffers from palpitation of heart; general health poor; emaciated and anæmic. Two years ago she strained herself in lifting a tub, causing pelvic pain and uterine hemorrhage for three weeks; has since lost strength steadily; thinks she aborted at that time at the seventh week of pregnancy, blood flowing from the uterus on the day following the strain. Preparatory treatment for one week only. Cannot remain long in hospital. Trachelorrhaphy on right side, five sutures; intercurrent attack of acute congestion of kidney, either caused or increased by the ether; ten per cent. of albumen in urine. Sutures removed on fifteenth day; laceration completely healed; cervix larger than normal; os. ex. of natural size. Urine now contains five per cent. albumen; one week later, one per cent. albumen. At end of two weeks (five weeks after operation) albumen disappeared. The congestion of the kidneys was appropriately treated. Patient discharged cured.

Case xxv. — Sent by Dr. Baldwin of Birmingham.

C. S., aged 26; mother of four children — youngest four years old; deliveries natural; no abortions; menstruation irregular, quantity normal; considerable mucous leucorrhœa for two years; "dull, aching pain in womb and bladder"; vagina large and chronically congested; perineum one-half inch long, and quite firm; uterus movable, retroverted to second degree, held in normal position by retroversion pessary, fitted by Dr. B.; two and one-half inches long; cervix lacerated on right, nearly to vaginal junction; both lips in state of granular erosion; chronic cervical endometritis. Sent to hospital by Dr. B., with the opinion that the erosion, which he had failed to benefit much, could not be cured except by trachelorrhophy. Thinking I might cure the erosion without operation, I treated it for five weeks, but with no better success than Dr. B. Trachelorrhaphy on right side (no anæsthetics), three sutures; removed upon the eleventh day; laceration completely healed. Retro-

version pessary put back eighteen days after operation; no erosion. Patient discharged cured.

CASE XXVI.

I. B., aged 23; mother of one child, now three years of age; delivery normal; one abortion; menstruation irregular, with excessive flow, and tenesmus; constant mucous leucorrhœa, tinged at times with blood; vagina large and congested; old hemorrhoids; uterus movable; axis normal, three inches long; chronic cervical endometritis; slight bilateral laceration of cervix, with slight eversion and granular erosion. General condition good. During past three years has suffered from attacks of hysterical spasms, occurring at first at long intervals, but in last six months they have come on every week; an attack lasts from one to three hours, and is typical of hysteria. She has injured her nervous system by efforts to prevent conception. The laceration present is too slight to require trachelorrhaphy. The erosion can be cured by treatment. Treated three weeks, with improvement. Discharged, with warning as to danger of her former practices to prevent conception. Treatment of endometritis and erosion to be continued at home.

In every case a careful examination of all the organs and functions was made, and omission to mention the results in these condensed histories may be considered to imply a normal condition.

Of the twenty-six cases, twenty-two were treated by trachelorrhaphy, and four by medical means only, it having been decided that operation was not necessary.

I should have added two more cases, each a double laceration, recently operated on successfully, making twenty-eight; but I have failed to find their misplaced histories.

Of the twenty-two operations seventeen were successes, and five were failures. Three were double trachelorrhaphies, of which two succeeded, and one partially failed, in that only one of the two lacerations healed, and this case is classed as a failure.

Fourteen were single trachelorrhaphies, of which eleven were successes, and three failures. Five were cases of trachelorrhaphy and perineorrhaphy, performed at one sitting, of which four succeeded and one partially failed, i. e., the cervical laceration was not satisfactorily united, classed as a failure.

The causes of the five failures were: Excessive straining during defecation, one; lack of preparatory treatment, two; lack of preparatory treatment and small size of posterior cervical lip from irregularity of the tear in a double laceration, one; lack of pre-

paratory treatment, anæmic condition, and hyperplasia of cervix, one. Lack of operative skill may also have had its influence.

The percentage of failures is 29.4, which is large, even in hospital practice. Dr. B. Hughes Wells* in a résumé of promiscuously selected cases, found the percentage of failures to be about eight. He writes, "non-union occurs in about eight per cent. of all operations, the percentage of failure being larger in hospital than in private practice." It is possible in such a collection of cases that some failures were not recorded, or that some partial failures were classed as successes.

From a consideration of these twenty-six cases, the following conclusions may be drawn:

I. The cure of laceration of the cervix uteri by the use of all of the medical means at our command is slow, somewhat dangerous, uncertain, and usually not permanent.

II. The cure by trachelorrhaphy, skillfully performed, is more rapid, safe, usually certain, and permanent. The time occupied in cure by this means may be expressed in weeks, while by the former it must be expressed in months, and sometimes in years.

III. Failure occurs in twenty-nine per cent. of hospital cases unless preparatory treatment be thoroughly carried out.

IV. Preparatory treatment of long duration is often unnecessary, but may be essential to success.

V. Stenosis of the cervical canal is not produced by this operation.

VI. The operation is almost free from the risk of cellulitis, septicæmia, or death, none of which occurred in the above series.

VII. It is possible to operate without an anæsthetic when valvular disease or fatty degeneration of the heart contra-indicates its use.

VIII. If trachelorrhaphy and perineorrhaphy are both necessary they may be done at one sitting.

In the discussion which followed, Dr. Ingalls of Hartford said: "The paper of Dr. Beckwith's is a forcible one, and one in which he has brought to our notice some valuable points, and my only object in speaking upon the subject is to most thoroughly endorse all he has said. It is very true, that all the time spent upon most

*Am. Jl. Obs., June, 1884.

of our cases of lacerated cervix, trying to cure them by local treatment, is time thrown away; and an operation is the only thing which will surely effect a cure. The operation has been severely condemned by some, but it seems to me that the condemnation has been most unjust. It has happened, as will happen to every new operation, that in its early days every lacerated cervix, no matter how slight the rent, was operated upon, and the fact that closing the rupture failed to bring about the beneficial results looked for, caused the operation to be blamed. It is necessary to bear in mind that it is not the simple existence of a laceration which calls for an operation; it is when nature, in attempting to heal the laceration, causes a plug of cicatricial tissue to be formed in the angles of the laceration which gives rise to certain reflex symptoms, that we are called upon to operate and by removing this plug, take away the cause of the neurosis and restore the patient to health. When, then, it is determined that an operation is called for (and right here I will say that by no means do all cases demand an operation), care must be taken and proper preparatory treatment adopted to bring the parts into condition. Under no consideration should an operation be made when there is any tenderness in the broad or utero-sacral ligament, or any cellulitis. This must all be first subdued, and then the operation can be safely performed; but, as I said at first, when these cicatricial plugs are in the angles, and there is an eversion and erosion of the mucous membrane, it is time thrown away to try to heal it by treatment. An operation is the only thing that will bring a satisfactory ending to the case."

The paper was discussed further by Dr. Nelson of New London, who thought these cases were nearly all due to subinvolution of the uterus. To which Dr. Ingalls replied that he considered subinvolution the *effect*, rather than the *cause* of these symptoms. He believed that we did not see subinvolution unless in some way the integrity of the uterine tissue had been damaged in parturition.

Dr. North believed that these lacerations ought to be detected before they had existed a long time, and favored an examination before the woman was allowed to go about the house, for the purpose of deciding whether laceration exists or not.

Dr. Wile discussed the subject with special reference to the nervous condition of women suffering from this accident.

Dr. Hubbard remarked that, "while he had not the surgical experience of his friend Dr. Beckwith in the treatment of lacera-

tions of the cervix uteri, he had no doubt that in cases which had reached the stage of eversion, the only successful treatment possible was that followed by Dr. Beckwith in the very interesting series of cases just read. He believed, however, with Dr. Nelson (?), who had just spoken, that if the state of the os-uteri were always examined at delivery, any laceration found could be in many cases so treated that it would not reach the stage of eversion, or give rise to the distressing nervous disabilities which follow it. The '*cicatricial tissue*' alluded to, always a barrier to the union of divided surfaces, was doubtless the result of erroneous treatment by caustics, and must, of course, be removed by surgical operation before union could take place. He regarded this operation as one of the greatest triumphs of American surgery. It was to be remembered that these cases had come under treatment from a variety of sources, whence the preventive treatment alluded to could not be had. He had met with a number of such cases of recovery (and cited one), but by recovery he did not mean, of course, a perfect union of torn surfaces, but such a degree of apposition and healing as left no painful after results. In one case of bilateral division by incision, the union was perfect — but such a case as this was outside the category of cases included in Dr. Beckwith's interesting and very instructive Essay."

In answer to an inquiry if the nervous symptoms disappeared after the operation, Dr. Beckwith replied that they were usually markedly relieved, the anaemia not always. It is difficult to follow the subsequent progress of the cases. The moral effect of the operation often deceives patients into thinking that they are better than they really are immediately after the operation.

The paper was further discussed by Dr. Douglas and others.